

AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended) A data processing apparatus comprising:

input means for receiving input data representative of a plurality of pixels arranged in a sequential order;

extraction means for extracting from the input data, similar input data having a value close to a value of given input data, said similar input data being temporally and spatially close to the given input data and including said given input data; and

processing means for processing the ~~input data according to the~~ similar input data extracted by said extraction means, and outputting the output data associated with said given input data;

wherein the input data to be processed is set as the given input data sequentially.

Claim 2. (Original) A data processing apparatus according to claim 1, wherein said extraction means extracts the similar input data by applying a weight to the input data according to a difference between the input data and the given input data.

Claim 3. (Original) A data processing apparatus according to claim 2, wherein said extraction means applies a weight to the input data by multiplying the input data with a predetermined weight function.

Claim 4. (Original) A data processing apparatus according to claim 3, further comprising setting means for adaptively setting the weight function.

Claim 5. (Original) A data processing apparatus according to claim 4, further comprising estimation means for estimating a level of noise contained in the input data, wherein said setting means sets the weight function according to the estimated level of noise.

Claim 6. (Original) A data processing apparatus according to claim 1, wherein said processing means calculates the output data by adding the similar input data which are weighted according to temporal or spatial proximity between the similar input data and the given input data.

Claim 7. (Original) A data processing apparatus according to claim 6, wherein said processing means applies a weight to the similar input data by multiplying the similar input data with a predetermined weight function.

Claim 8. (Original) A data processing apparatus according to claim 7, further comprising setting means for adaptively setting the weight function.

Claim 9. (Original) A data processing apparatus according to claim 8, further comprising estimation means for estimating a level of noise contained in the input data, wherein said setting means sets the weight function according to the estimated level of noise.

Claim 10. (Original) A data processing apparatus according to claim 1, wherein said extraction means extracts the similar input data from the input data based on a difference between the input data and the given input data.

Claim 11. (canceled)

Claim 12. (Original) A data processing apparatus according to claim 1, wherein said extraction means extracts input data, as the similar input data, whose difference from the given input data is within a predetermined value.

Claim 13. (Original) A data processing apparatus according to claim 12, further comprising setting means for adaptively setting the predetermined value.

Claim 14. (Original) A data processing apparatus according to claim 13, further comprising estimation means for estimating a level of noise contained in the input data, wherein said setting means sets the predetermined value according to the estimated level of noise.

Claim 15. (Original) A data processing apparatus according to claim 14, wherein said estimation means estimates the level of noise based on a difference between the input data and the corresponding output data or based on a variance of the input data.

Claim 16. (Original) A data processing apparatus according to claim 1, wherein said processing means calculates the output data by performing approximate processing using the similar input data.

Claim 17. (Original) A data processing apparatus according to claim 16, wherein said processing means performs the approximate processing according to a predetermined model.

Claim 18. (Original) A data processing apparatus according to claim 17, wherein said processing means performs the approximate processing according to a model represented by a linear expression.

Claim 19. (Currently Amended) A data processing method comprising:

- an input step for receiving input data representative of a plurality of pixels arranged in a sequential order;
- an extraction step of extracting from the input data similar input data having a value close to a value of given input data, said similar input data being temporally and spatially close to the given input data and including said given input data; and
- a processing step of processing ~~the input data according to the extracted similar input data~~, and outputting the output data associated with said given input data;

wherein the input data to be processed is set as the given input data sequentially.